### (19) World Intellectual Property Organization International Bureau



### 

## (43) International Publication Date 21 May 2004 (21.05.2004)

#### **PCT**

# (10) International Publication Number WO 2004/041318 A1

(51) International Patent Classification<sup>7</sup>: C08J 3/28

A61L 27/18,

(21) International Application Number:

PCT/EP2003/012425

(22) International Filing Date:

5 November 2003 (05.11.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

1021843

5 November 2002 (05.11.2002) N

- (71) Applicant (for all designated States except US): UNIVER-SITEIT TWENTE [NL/NL]; Drienerlolaan 5, NL-7522 NB Enschede (NL).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): GRIJPMA, Dirk, Wybe [NL/NL]; Ir. M. Schefferlaan 31, NL-7556 CP Hengelo (NL). GOMES MOREIRA PÊGO, Ana, Paula [PT/NL]; Matenweg 26-208, NL-7522 LH Enschede (NL). FEIJEN, Jan [NL/NL]; Oude Grensweg 96, NL-7552 GD Hengelo (NL).

- (74) Agent: VAN SOMEREN, Petronella, Francisca, Hendrika, Maria; Arnold & Siedsma, Sweelinckplein 1, NL-2517 GK The Hague (NL).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD FOR PROVIDING SHAPED BIODEGRADABLE AND ELASTOMERIC STRUCTURES OF (CO) POLYMERS OF 1,3-TRIMETHYLENE CARBONATE (TMC), SHAPED BIODEGRADABLE AND ELASTOMERIC STRUCTURES, AND THE USE OF THESE STRUCTURES

(57) Abstract: The present invention relates to methods for providing shaped biodegradable and elastomeric structures of (co)polymers of 1,3trimethylene carbonate (TMC) with improved (mechanical) properties which can be used for tissue or tissue component support, generation or regeneration. Such shaped biodegradable elastomeric structures are obtainable by forming homopolymers and/or copolymers of 1,3-trimethylene carbonate (TMC) into a desired shape and irradiating said desired shape with actinic radiation in an inert atmosphere.

